

# **APPARATUS AND METHOD FOR COMMUNICATING BETWEEN COMPUTER SYSTEMS USING ACTIVE DATASTREAMS**

## **ABSTRACT OF THE DISCLOSURE**

Two computer systems communicate with each other using active datastreams  
5 that each identify executable code for sending and receiving the corresponding active  
datastream, and for performing any processing required by the active datastream. Each  
active datastream also includes a unique datastream identifier. When a first computer  
system (source) has a request to send to a second computer system (target), the source  
computer system creates an active datastream object that represents the request. Once the  
10 active datastream object is created, a method on the active datastream object is invoked to  
send the active datastream object to the target. A datastream factory on the target reads  
the datastream identifier of the transmitted active datastream object, determines from the  
datastream identifier the class of active datastream object being received, and creates a  
new instance of the class corresponding to the datastream identifier. A datastream  
15 receive mechanism on the target is a method on the new instance, which is invoked to  
cause the instance to populate itself from the active datastream object received from the  
source. Logic for replying to the request may also be provided as one or more methods  
defined on the active datastream class.